

CLAIMS

1. A method for modifying a carbohydrate moiety of a glycoprotein, which comprises altering a carbohydrate recognition domain of a cargo receptor to
5 modify a carbohydrate moiety of a glycoprotein.

2. The method according to claim 1, wherein the cargo receptor is VIP36 and/or ERGIC-53.

10 3. The method according to claim 1 or 2, wherein the glycoprotein is a membrane-bound protein or a secretory protein.

4. A glycoprotein, wherein a carbohydrate moiety thereof is modified by the method according to any one of claims 1 to 3.

15 5. A method for producing a modified oligosaccharide, which comprises cleaving an oligosaccharide from the glycoprotein according to claim 4.

20 6. A modified oligosaccharide, which is produced by the production method according to claim 5.

7. A method for preparing a cell expressing a glycoprotein with a modified carbohydrate moiety, which comprises altering a carbohydrate recognition domain of a cargo receptor to modify a carbohydrate moiety of a glycoprotein.

25 8. The method according to claim 7, wherein the cargo receptor is VIP36 and/or ERGIC-53.

9. The method according to claim 7 or 8, wherein the glycoprotein is a

membrane-bound protein or a secretory protein.

10. A cell expressing a glycoprotein with a modified carbohydrate moiety, which is prepared by the method according to any one of claims 7 to 9.

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11. A method for producing a glycoprotein with a modified carbohydrate moiety, which comprises culturing the cell according to claim 10 and collecting a glycoprotein with a modified carbohydrate moiety from the obtained culture.

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12. A method for constructing a modified carbohydrate library, which comprises introducing random mutations into a carbohydrate recognition domain of a cargo receptor and expressing a glycoprotein having a modified carbohydrate moiety.

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13. A method for screening for a test substance interacting with a glycoprotein or an oligosaccharide cleaved from a glycoprotein, or a specific oligosaccharide, which uses the cell expressing the glycoprotein with a modified carbohydrate moiety according to claim 10 or the modified carbohydrate library that is constructed by the method according to claim 12.

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